

TITLE V APPLICATION REVIEW

Project #: 960618
Deemed Complete: 12/31/96

Engineer: Beverly Boucher
Date: 11/20/97

Facility Number: N-823
Facility Name: Stockton East Water District
Mailing Address: PO Box 5157
Stockton, CA 95205-0157

Contact Name: John Yoshimura
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Responsible Official: Edward M. Steffani
Title: General Manager

I. PROPOSAL

The Stockton East Water District is proposing that initial Title V permits be issued for its existing Water Treatment Plant in Stockton, California. The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with those applicable requirements, and to provide the legal and factual basis for proposed permit conditions.

II. FACILITY LOCATION

The facility is located at 6767 E. Main Street in Stockton, California.

III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is included as Attachment A.

A summary of exempt equipment categories which describes the insignificant activities or equipment at the facility not requiring a permit is shown in Attachment B. This equipment is not exempt from facility-wide requirements.

This facility consists of five existing permitted units, which include diesel fired IC engines and gasoline storage tanks. Current Permits to Operate C-823-1-0, -2-0, -3-0, -4-0, and -5-0 are included as Attachment C.

IV. GENERAL PERMIT TEMPLATE USAGE

The applicant is requesting to use the following model general permit Templates:

A. SJV-UM-0-0, Facility-Wide Umbrella

The applicant has requested to utilize template SJV-UM-0-0, Facility-Wide Umbrella, to address facility-wide requirements (N-823-0-1). Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

B. SJV-IC-1-0, Series 1 Internal Combustion Engines

The applicant has requested to utilize template No. SJV-IC-1-0, Series 1 Internal Combustion Engines, for the internal combustion (IC) engine units N-823-1-0, -2-0, -3-0 and -4-0. Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

V. SCOPE OF PUBLIC AND EPA REVIEW

Certain segments of the proposed Operating Permit are based on a model general permit template that has been previously subject to EPA and public review. The terms and conditions from the model general permit template are included in the proposed permit and are not subject to further EPA and public review.

For permit applications utilizing a model general permit template, public and agency comments on the District's proposed actions are limited to the applicant's eligibility for that model general permit template, applicable requirements not covered by the model general permit template, and the applicable procedural requirements for issuance of Title V Operating Permits.

The following permit conditions, including their underlying applicable requirements, originate from a model general permit template and are not subject to further EPA and public review:

Conditions 1 through 39 of facility-wide requirements (N-823-0-1)

Conditions 1 through 11 on Permits N-823-1-1, -2-1, -3-1, and -4-1

VI. APPLICABLE REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES

District Rule 1100, Equipment Breakdown (as amended December 17, 1992)¹

District Rule 1160, Emission Statements (as adopted November 18, 1992)¹

District Rule 2010, Permits Required (as amended December 17, 1992)¹

District Rule 2020, Exemptions (as amended July 21, 1994)¹

District Rule 2031, Transfer of Permits (as amended December 17, 1992)¹

District Rule 2040, Applications (as amended December 17, 1992)¹

District Rule 2070, Standards for Granting Applications (as amended December 17, 1992)¹

District Rule 2080, Conditional Approval (as amended December 17, 1992)

District Rule 2520, Federally Mandated Operating Permits, Sections 9.5.1, 9.5.2, 9.6.1, 9.6.2, 9.8, 9.9.1, 9.9.2, 9.9.3, 9.9.4, 9.9.5, 9.10, 9.13.1, 9.14.1, 9.14.2, 9.17, and 10.0 (adopted June 15, 1995)¹

District Rule 2520, Federally Mandated Operating Permits, Section 9.4.2 and 9.5.2 (adopted June 15, 1995)²

District Rule 4101, Visible Emissions (as amended December 17, 1992)¹

District Rule 4201, Particulate Matter Concentration (as amended December 17, 1992)²

¹ Conditions from Model General Template SJV-UM-0-0 addressed these facility-wide requirements (N-823-0-1)

² Conditions from Model General Permit Template SJV-IC-1-0 addressed these requirements for permit units N-823-1-1 through -4-1.

¹ Conditions from Model General Template SJV-UM-0-0 addressed these facility-wide requirements (N-823-0-1)

² Conditions from Model General Permit Template SJV-IC-1-0 addressed these requirements for permit units N-823-1-1 through -4-1.

District Rule 4601, Architectural Coatings (as amended December 17, 1992)¹

District Rules 8020, 8030, and 8060, Fugitive Dust (PM₁₀) Emissions (as amended April 25, 1996)¹

40 CFR Part 61, Subpart M, National Emission Standard for Asbestos¹

40 CFR Part 82, Subpart F, Stratospheric Ozone¹

San Joaquin County Rule 407, Sulfur Compounds²

VII. APPLICABLE REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES

District New and Modified Stationary Source Review Rule

District Rule 1081, Source Sampling, (as amended December 16, 1993)

District Rule 2520, Federally Mandated Operating Permits, Sections 9.1 and 9.4.2 (adopted June 15, 1995)

District Rule 4621, Gasoline Transfer into Stationary Containers, Delivery Vessels, and Bulk Plants (as amended May 20, 1993)

District Rule 4622, Transfer of Gasoline into Vehicle Fuel Tanks (as amended February 17, 1994)

40 CFR Part 68, Chemical Accident Prevention Provisions

VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits. The terms and conditions that are part of the facility's Title V permit are designated as "Federally Enforceable Through Title V Permit".

For this facility, conditions 15 and 27 of the requirements for permit units N-823-1-1 through N-823-4-1 are not Federally Enforceable through Title V.

IX. COMPLIANCE

A. Requirements Addressed by Model General Permit Templates

1. Facility Wide Requirements

The applicant is proposing to use a general permit template to address federally applicable facility-wide requirements. Section IV of template SJV-UM-0-0 includes a demonstration of compliance for all applicable requirements. Template conditions have been added to the facility-wide requirements (C-1235-0-0) as condition numbers 1 through 39 to assure compliance with these requirements.

2. Four Diesel Fueled IC Engines (N-823-1-0 through -4-0)

The applicant is proposing to use a general permit template to address federally applicable requirements for the internal combustion engines (N-823-1-0 through -4-0). Section IV of template SJV-IC-1-0 includes a demonstration of compliance for applicable requirements. Template conditions numbers 1 through 11 have been added to the requirements for permit units N-823-1-1 through -4-1 to assure compliance with these requirements.

B. Requirements Not Addressed by Model General Permit Templates

1. New and Modified Stationary Source Review Rule (NSR)

a. Diesel IC Engine Units N-823-1-0 and N-823-2-0

Permit units N-823-1-0 and N-823-2-0 were subject to NSR at the time the applicant applied for Authority to Construct (ATC) these units. ATCs N-823-1-0 and N-823-2-0 were issued by the District on July 9, 1992.

- The requirements of condition 1 of each ATC are equivalent to condition 22 of the facility-wide requirements (N-823-0-1). Both require that no air contaminant be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann 1 or 20% opacity. Therefore, it is unnecessary to add this condition to the requirements for permit units N-823-1-1 and N-823-2-1.
- The requirements of condition 2 of each ATC are equivalent to condition 3 of Template SJV-IC-1-0. Both limit the sulfur content to less than 0.05% by weight. The template condition has been

added to the requirements for permit units N-823-1-1 and N-823-2-1 as condition 3.

- Condition 3 of each ATC is included as permit condition 17 of the requirements for permit units N-832-3-1-1 and N-823-2-1.
- Condition 4 of each ATC is included in permit condition 14 of the requirements for permit units N-832-1-1 and N-823-2-1.
- Condition 5 of each ATC is included as permit condition 13 of the requirements for permit units N-832-1-1 and N-823-2-1.
- Conditions 6 and 8 of each ATC are included in permit condition 12 of the requirements for permit units N-832-1-1 and N-823-2-1. The wording of ATC condition 8, which requires annual verification of the engine timing retarding, has been changed in condition 12 of the Title V permit. This change in wording does not change the intent of the requirement and is not a modification as defined in the District NSR Rule.
- Conditions 7 and 9 through 11 of each ATC are not included in the PTO conditions and are considered to be obsolete or extraneous. Condition 7 is extraneous because it requires the submission of a report, after the issuance of the ATC, which specifies engine injection timing. Conditions 9 through 11 of the ATCs are obsolete since they require a one time source test be conducted after the issuance of the ATC. These requirements were completed prior to PTO issuance for these units.

b. Diesel IC Engine Units N-823-3-0 and N-823-4-0.

Permit units N-823-3-0 and N-823-4-0 were subject to NSR at the time the applicant applied for Authority to Construct (ATC) these units. ATCs N-823-3-0 and N-823-4-0 were issued by the District on July 9, 1992.

- The requirements of condition 1 of each ATC are equivalent to condition 22 of the facility-wide requirements (N-823-0-1). Both require that no air contaminant be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann 1 or 20% opacity. Therefore, it is unnecessary to add this condition to the requirements for permit units N-823-3-0 and N-823-4-0.
- The requirements of condition 2 of each ATC are equivalent to condition 3 of Template SJV-IC-1-0. Both limit the sulfur content to less than 0.05% by weight. The template condition has been added to the requirements for permit units N-823-3-0 and N-823-4-0 as condition 3.

- Condition 3 of each ATC is included as permit condition 17 of the requirements for permit units N-823-3-1 and N-823-4-1.
 - Condition 4 of each ATC is included in permit condition 14 of the requirements for permit units N-832-3-1 and N-823-4-1.
 - Condition 5 of each ATC is included as permit condition 13 of the requirements for permit units N-832-3-1 and N-823-4-1.
 - Condition 6 of each ATC is included in permit condition 12 of the requirements for permit units N-832-3-1 and N-823-4-1.
 - Condition 7 in ATCs N-823-3-0 and N-823-4-0 is considered extraneous and is not included in the requirements for permit units N-832-3-1 and N-823-4-1. Condition 7 of the ATC is extraneous because it requires the submission of a report, after the issuance of the ATC, which specifies engine injection timing. This requirement was completed prior to PTO issuance for these units.
 - Condition 8 of each ATC is included in permit condition 12 of the requirements for permit units N-832-1-1 and N-823-2-1. The wording of ATC condition 8, which requires annual verification of the engine timing retarding, has been changed in condition 12 of the Title V permit. This change in wording does not change the intent of the requirement and is not a modification as defined in the District NSR Rule.
- c. Two Underground Gasoline Tanks Served By One Dispensing Nozzle (N-823-5-1).

The original ATC N-823-5-0 was issued by San Joaquin County APCD on 1/13/76. A second ATC to address Phase II vapor recovery system was issued on 10/2/79 but expired before implementation. Since the earlier ATC, upon which the current operating conditions are based, was issued prior to the NSR baseline date of May 29, 1979, this device was not subject to the NSR requirements.

2. District Rule 1081

District Rule 1081 has been submitted to the EPA to replace each of the county rules in the Fresno County SIP-approved Rule 108.1. Attachment D lists all of the applicable requirements of District Rule 1081 and shows which are included in the corresponding county rules, including Fresno County. This table shows that District Rule 1081 is more stringent than each of these county rules.

a. Diesel Fueled IC Engines (N-823-1-0 through -4-0)

Sections 3.0, 4.0, 5.0, 6.0, and 7.0 set forth requirements for sampling facilities, collection of samples, test methods, test procedures, and administrative requirements, respectively. Compliance with District Rule 1081 is assured by condition 16 of the requirements for permit units N-823-1-0 through -4-0.

3. District Rule 2520, 9.1, 9.4.2, and 9.5.2, Federally Mandated Operating Permits

Section 9.1 requires each permit to include emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance.

Section 9.4.2 requires that periodic monitoring be performed if none is associated with a given emission limit to assure compliance. This section allows that recordkeeping requirements may be sufficient to meet these requirements.

Section 9.5.2 requires all records be maintained for at least five years.

a. Diesel Fueled IC Engines (N-823-1-0 through -4-0)

Condition 12 of the requirements for permit units N-823-1-0 through -4-0 requires written proof of timing retardation to consist of completion of the District IC Engine Timing Certification Form by the mechanic performing the annual tune-up (see Attachment E). This requirement will help assure continued compliance with NOx emission limits, pursuant to section 9.4.2.

Compliance with particulate matter (PM) and NO_x emission limits and the facility-wide opacity limit will be assured by source testing, monitoring, and recordkeeping required by conditions 14 and 19-26 of the requirements for permit units C-1235-1-2 and -2-2. Condition 14 specifies NO_x source test methods and frequency of sources tests. Conditions 19 through 24 allow source testing of representative units, under certain conditions. Conditions 25 and 26 require stack and equipment inspections for visible emissions and associated recordkeeping.

b. Gasoline storage and dispensing, C-823-5-0.

Pursuant to section 9.1 requirements, condition #7 of the requirements for permit unit C-823-5-1 prohibits gasoline transfer into any gasoline stationary storage tank if the vapor recovery system contains an inoperative dry break. This requirement will help insure Phase I vapor recovery systems will continue to operate with 95% efficiency.

District Rule 4621 does not specify test methods or monitoring frequency to show continued compliance with the 95% efficiency requirement for ARB Certified Phase I Vapor Recovery Systems. Therefore pursuant to section 9.4.2, condition #5 of the requirements for permit unit C-823-5-1 requires performance testing to be conducted at specified frequencies.

4. District Rule 4621, Gasoline Transfer into Stationary Storage Containers, Delivery Vessels, and Bulk Plants

This rule applies to the transfer of gasoline into stationary storage tanks.

a. Two Underground Gasoline Tanks Served By One Dispensing Nozzle (N-823-5-0)

Section 5.1.1 of this rule requires that all stationary storage containers with a capacity greater than 250 gallons be equipped with a permanent submerged fill pipe and an ARB certified Phase I vapor recovery system, as defined in section 3.1 of the rule. Condition 4 of the requirements for permit unit C-823-5-1 assures compliance with this section.

Section 5.1.2 of this rule applies to above ground storage tanks. The storage tanks at this facility are underground tanks, thus this requirement does not apply.

Section 5.2.1 prohibits the source from operating or allowing the operation of a gasoline delivery vessel unless valid State of California decals, which attest to the vapor integrity of the tank, are displayed. Condition 6 of the requirements for permit unit C-823-5-1 assures compliance with this section.

Section 5.2.2 of this rule applies to the loading of gasoline delivery vessels. Section, thus does not apply to this facility.

Section 5.3 of this rule applies to gasoline bulk plants, thus does not apply to this facility.

Section 5.4 of this rule requires that the vapor recovery system used to comply with the requirements of this rule shall comply with all safety, fire, weights and measures, and other applicable codes and/or regulations. This is a general "liability" clause which originated from the CARB Executive Orders certifying Phase I and II Vapor Recovery Systems. This requirement contains no air-pollution related requirements that must be included in the permit.

Section 6.1 of this rule applies only to facilities required to provide recordkeeping which demonstrates their exemption from this rule. This section does not apply to this facility because it is not exempt from this rule.

Section 6.2 of this rule prescribes test methods that are to be used to demonstrate compliance with this rule. ARB Method 202 is required by District Rule 4621, section 6.2, for compliance with the vapor recovery requirements. This method is a certification procedure for gasoline bulk plants (where delivery vessels are being loaded with gasoline) and is not applicable to this gasoline dispensing facility where storage tanks are being filled by gasoline delivery vessels for later transfer to the end user. Compliance is assured with the vapor recovery requirements using performance tests required by District Rule 4622 in condition 5 of the requirements for permit unit C-823-5-1.

5. District Rule 4622, Gasoline Transfer into Vehicle Fuel Tanks

Pursuant to District Rule 4622, section 4.0, Exemptions, facilities such as this one, which do not exceed this throughput limit of 24,000 gallons of gasoline per calendar year are subject only to sections 4.0, Exemptions and 6.1, Recordkeeping and Reporting of this rule.

a. Two Underground Gasoline Tanks Served By One Dispensing Nozzle (N-823-5-1)

Section 4.1 of this rule states that except for provisions of section 6.1, the rule does not apply to the transfer of gasoline into motor vehicle fuel tanks from existing facilities with an aggregate throughput less than or equal to 10,000 gallons per month and less than or equal to 24,000 gallons per year. Permit condition 1 of the requirements for permit unit N-823-5-1 assures that the throughput does not exceed these levels.

Section 6.1.1 requires that a gasoline dispensing facility exempt under Section 4.1 maintain throughput records which will allow the throughput for any 30 day period to be continuously determined. Permit condition 2 of the requirements for permit unit N-823-5-1 requires that records of gasoline throughput be kept and maintained on the premises.

Section 6.1.2 requires the facility to notify the District within 30 days when the gasoline throughput exceeds the exemption levels in Section 4.1. Compliance with this requirement is assured by permit condition 3 of the requirements for permit unit N-823-5-1.

6. 40 CFR Part 68 - Chemical Accident Prevention Provisions

a. Entire Facility

Requirements from this regulation are applicable to facilities which may store regulated substances above a threshold limit, as specified in the regulation. Stockton East Water District at times stores greater than 2,500 pounds of chlorine, a regulated toxic substance listed in Table 1 of 40 CFR 68.130, and is therefore subject to these requirements. Compliance with these regulations will be required by condition 40 of the facility-wide requirements (N-823-0-1).

X. PERMIT SHIELD

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

A. Requirements Addressed by Model General Permit Templates

By submitting model general permit template SJV-UM-0-0, the applicant has requested that a permit shield be granted for all the applicable requirements identified by the template. Therefore, the permit shield as granted in the model general permit template is included as conditions 38 and 39 of the facility-wide requirements (N-823-0-1).

By submitting model general permit template SJV-IC-1-0, the applicant has requested that a permit shield be granted for all the applicable requirements identified by the template. Therefore, the permit shield as granted in the model general permit template is included as conditions 10 and 11 of the requirements for permit units N-823-1-1 through -4-1.

XI. PERMIT CONDITIONS

(see proposed permit, beginning on the next page)

ATTACHMENT A

FACILITY EQUIPMENT LISTING

ATTACHMENT B

EXEMPT EQUIPMENT AND ACTIVITIES

The facility has the following equipment or activities, which are exempt from permitting.

Exemption Category	Rule 2020 Citation
Piston-type I.C. engine with maximum continuous rating of 50 brake horsepower (bhp) or less	5.1.2
Brazing, soldering, or welding equipment	5.10.1
Containers with a capacity \leq 250 gallons used to store organic material where the actual storage temperature $<$ 150 F	5.7.4
Containers used to store petroleum distillates used as motor fuel with specific gravity \geq 0.8251	5.7.7
Containers used to store refined lubricating oils	5.7.8
Non-structural repairs & maintenance to permitted equipment	4.2.6

ATTACHMENT C

EXISTING PERMITS TO OPERATE
AND
AUTHORITIES TO CONSTRUCT

ATTACHMENT D

COUNTY RULE / DISTRICT RULE 1081 COMPARISON

Rule 1081 (Source Sampling)

	1081 SJVUAPCD	108 KINGS	110 MADERA	108.1 FRESNO	108.1 MERCED	108.1 S.J.	108.1 TULARE	108.1 KERN	108.1 STANI SLAUS
REQUIREMENTS									
Upon request of the APCO, the source shall provide info. and records to enable the APCO to determine when a representative sample can be taken.	X		X	X	X	X	X	X	X
The facility shall collect, have collected or allow the APCO to collect, a source sample	X	X	X	X	X	X	X	X	X
The source shall have District personnel present at a source test	X								
The applicable test method, if not specified in the rule, shall be conducted in accordance with 40 CFR § 60, Appendix A	X								
Test procedures: 1) arithmetic mean of three runs 2) a scheduled source test may not be discontinued solely due to the failure to meet the applicable standard(s), and 3) arithmetic mean of two runs is acceptable if circumstances beyond owner or operator control occurs.	X								

ATTACHMENT E

DISTRICT IC ENGINE TIMING CERTIFICATION FORM

ATTACHMENT F

EPA COMMENTS / DISTRICT RESPONSE

EPA COMMENTS / DISTRICT RESPONSE

The EPA's comments regarding the proposed Title V Operating Permit for Stockton East Water District (District facility #N-823) are encapsulated below followed by the District's response. A copy of the EPA's 9/19/97 letter is available at the District.

Objections Issues:

1. **EPA OBJECTION**

This source has elected to use IC engine template SJV-IC-1-0 for all four of its ICEs. We erred by not commenting on representative testing for particulate matter in any of the IC engine templates. We did not have the opportunity to comment on representative testing for the first set of boiler templates. We did, however, later comment on representative testing for the second set of boiler templates. At that time, we stated that representative testing could be acceptable only if certain criteria were met. For example, EPA believes that representative testing might be acceptable if the number of sources are known, the amount and types of emission are known, and the similarity of sources is defined.

To be consistent with our position on the second set of boiler templates (refer to letter of April 16, 1997), we believe both the IC engine templates and the first set of BSG templates must be corrected to address this problem.

DISTRICT RESPONSE

The District will not change conditions (except for administrative corrections) or add conditions to any finalized template, at this time. The District will add source specific conditions to the Title V permit of any source using the IC engine or first set of boiler templates to assure compliance with all federally enforceable conditions. For Stockton East Water District, the following conditions will be added to IC engine permit units N-823-1-1 through -4-1:

- The following conditions must be met for representative unit(s) to be used to demonstrate compliance for pollutant limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units the group are similar in terms of rated brake horsepower, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a

single stationary source, and 4) the selection of the representative unit(s) is approved by the APCO prior to testing. [District Rules 2520, 9.4.2]

- The representative unit source tested to demonstrate compliance shall be rotated, so that when 2 annual source test cycles have been completed, both units (N-823-1 and N-823-2 or N-823-3 and N-823-4 [as applicable]) will have been tested. [District Rules 2520, 9.4.2]

- All units in a group for which representative units are annually source tested to demonstrate compliance for emission limits of this permit shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2]

- An engine operating log shall be maintained for the each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rule 2520, 9.4.2]

- Should any of the representative units exceed the required emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rule 2520, 9.4.2]

2. EPA OBJECTION

All four ICE's are required to operate with timing retarded to four degrees. However, there is nothing in the permit to assure compliance with the NOx emission daily limits or that the timing retard is maintained at four degrees. The permit should include a condition for periodic tuning to verify that the proper setting for the engine timing retard is maintained. The District must incorporate testing requirements and periodic monitoring, such as good O&M, to assure compliance with these requirements.

DISTRICT RESPONSE

A condition will be added to require source testing for NOx NSR limits (EPA Method 7E, or ARB Method 100) at least every 24 months. This testing frequency is identical to that required by District Rule 4701. Annual tuning and certification for timing retarding will be required to assure compliance with the emission limits.

3. EPA OBJECTION

The ICEs at this source are subject to the 20% opacity limit. The District must include a monitoring frequency for conducting Method 9 emission tests and/or other visible emission observation requirements as are necessary to assure compliance.

DISTRICT RESPONSE

Weekly opacity monitoring and recordkeeping will be required for the diesel fired IC engines, similar to that proposed by EPA in Enclosure 5, 1) of EPA's comments.